Enhancing Education Through Technology (EETT)
Competitive Sub-grant Application Assurance Sheet

Project Title: VISTAS Amount of Request: $ 75,000
District Name (Fiscal Agent for Consortiums): Vallivue Number: 139
Please list the school name, and indicate whether it is a targeted school or a partner school and certify the CIPA compliance for all participating schools within the project:

Dist. # or 'P' for Private School	School Name	This school is a targeted school 'T' or a partner school 'P'.	This school is in compliance with the CIPA as outlined on page 3 of the guidance document.
139	Sage Valley Middle School	(T) P	(YES) NO
139	Vallivue Middle School	(T) P	(YES) NO
139	Vallivue High School	(T) P	(YES) NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO

I certify that we have contacted the charter and private schools in our area about participation in this grant.

Superintendent Name George Grant	E-mail ggrant@vallivue.org	Telephone 208 454-0445
Signature George Grant		
District Technology Coordinator Name Shnae Schamber	E-mail shanes@vallivue.org	Telephone 208 454-0445
Signature Shane Schamber		
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Abstract

States are increasingly interested, and seeking to integrate, formative assessment into their state education systems. This interest will continue to intensify as the *No Child Left Behind* goal of 100 percent proficiency by 2014 looms closer. States and school districts are beginning to see formative assessment as a powerful tool for driving student achievement and school improvement. Vallivue School District acknowledges this fact and realizes that administrators and teachers need a formative assessment tool that produces real time data that can be used to drive classroom instruction and planning, lead to higher sustainable levels of student achievement, and create an educational system that is more efficient.

Vallivue is proposing the *Vallivue Initiative for a Standards Testing Assessment System* (VISTAS) project for mathematics in order to reap the benefits of using formative assessment. The principal target will be grade 6-12 math students and more specifically those students identified in Tier II and Tier III levels of the Individuals with Disabilities Education Improvement Act (IDEIA) framework. The focus of this project is mathematics because it is the content area that has been identified as needing the most improvement on statewide, standardized achievement tests in the Vallivue School District.

The VISTAS grant seeks to purchase the NCS Pearson *Prosper Assessment* system for the new middle school, Sage Valley (SV) and Vallivue High School (VHS) as well as expand the usage at Vallivue Middle School (VMS). This assessment system is a centralized, network-based, formative assessment system that helps educators implement true formative assessment strategies in their schools and classrooms. *Prosper* provides teachers with immediate feedback tied specifically to learning objectives and state standards. Teachers know immediately what objectives need to be re-taught. The data generated allows educators to track and compare class and student proficiency across multiple assessments.

Secondary horizontal collaboration efforts have intensified over the last two years in order to create common assessments, pacing calendars, and to expose and alleviate educational gaps in required skills needed upon entry into high school mathematics programs. The addition of a second middle school this year has forged a parallel partnership that has created one uniform middle school system. Unfortunately, an inequity now exists because VMS is the only secondary school that uses the *Prosper* system.

Vallivue Middle School purchased the *Prosper* system and numerous math test banks in the spring of 2007 and began successful implementation this school year. Teachers began to benefit from the assessment data generated from usage of *Prosper*, although in a limited manner. Time constraints have not allowed the creation and formatting of state or district middle school math standards and objectives, nor have teachers had time to tie all questions in the test banks to these standards. On the other hand, Prosper back-end administrators have dealt with many of the issues associated with this type of system and now possess an expertise on the intricacies of the *Prosper* system. This knowledge and experience is invaluable to the success and the future incorporation of the *Prosper* system throughout the district. In addition, the work that needs to be completed in order to fully implement the *Prosper* system can now be shared across all the secondary schools.

Educational Need

The past two years Vallivue has embarked on a strategic and extensive plan to strengthen the mathematics program of our district. Low ISAT scores in mathematics across the district revealed a serious achievement gap that could reduced through the use of research based technologies and additional training for our math department. Through grants and district funding Vallivue was able to purchase needed calculators for distribution throughout the district. Likewise, several Texas Instruments Navigator systems were purchased which allows the teachers and students to wirelessly exchange and manipulate complex mathematical equations on their calculators. Extensive professional development training was provided for the math teachers. Furthermore, highly qualified math experts have come to observe and provide feedback to our math instructors. Vallivue also hired a math coach to provide additional guidance and direction for our math department.

Student motivation and academic achievement is on the rise in our general education population because of these concerted efforts. However, further attention is needed to effect change in our sub-group populations such as our Economical Disadvantaged and Limited English Proficient students. On the spring 2007 ISAT, only 49% of Economically Disadvantaged, 12% of Limited English Proficient, 38% of Students with Disabilities, and 41% of Hispanic 9th graders rated at minimal proficiency. At the 10th grade, only 54% Econ Dis, 29% LEP, 38% SWD, and 44% Hispanic met minimal proficiency.

VALLIVUE MATH ISAT

	State	Vallivue		Econ Dis		LEP		SWD		Hispanic	
Grade	2006-07	2005-06	2006-07	2005-06	2006-07	2005-06	2006-07	2005-06	2006-07	2005-06	2006-07
6	75%	75%	**61%**	64%	**49%**	49%	**35%**	23%	**12%**	57%	**48%**
7	70%	66%	**62%**	58%	**52%**	43%	**35%**	31%	**49%**	53%	**53%**
8	72%	55%	**59%**	42%	**49%**	16%	**24%**	23%	**24%**	37%	**46%**
9	77%	33%	**61%**	19%	**49%**	9%	**12%**	2%	**38%**	15%	**41%**
10	73%	53%	**64%**	36%	**54%**	27%	**29%**	4%	**38%**	37%	**44%**

Econ Dis = Economically Disadvantage **LEP = Limited English Proficiency**
SWD = Students With Disabilities

The Vallivue School District introduced several programs over the last two years to reverse this trend in the area of mathematics, including the Three Tier Model implemented in our high school. The model begins in the first tier where most of the general education students fall and is grounded in researched based curriculum. It then progresses to the second tier where supplementary materials and programs are provided to support students not making adequate progress. Finally, the third tier is designed for students not making adequate progress and who require more intensive intervention to meet their needs. Most of our subpopulation groups fall within tier two and three.

To meet the educational needs of students in tier two and three, specific and direct curricular intervention is utilized. However, the need for more in-depth statistical analysis is required beyond the scope of simple ISAT RIT scores. The ISAT is a summative test that is intended to measure growth from year to year on cohort groups and is not designed, nor can it be used, to measure an actual student's growth from year to year. In order to accurately gauge a student's individual performance, a formative assessment system is required. This type of assessment can

be administered at any time to determine academic areas of weakness and growth, which allows the teacher to deliver tailored instruction to address the specific needs of each student. Formative assessment can also provide analytical data from week-to-week, month-to-month, and year-to-year to discover a student's gap in his education and take corrective action.

Current research on formative assessment reveals unequivocally that implementing a program of frequent formative assessments can have a dramatic impact on student learning. A major study, *Inside the Black Box: Raising Standards Through Classroom Assessment*, conducted by Paul Black and Dylan Williams in 1998, consisted of reviewing ten years worth of data containing about 580 articles, studies, and chapters on the subject. They established, for all intents and purposes, that frequent formative assessments, used properly, have a direct impact on increasing student achievement. In addition, conducting frequent short tests are better than infrequent long tests because evaluating new learning is best when done within one week of its introduction. The most surprising implication is that improved formative assessment benefits low-end learners more than the general population. The key to this increase can be attributed to innovations in the practices of using formative assessment and using a feedback mechanism between teachers and students. The fundamental assumption is that teaching and learning are an interactive process and that students are just as important users of assessment data as are school personnel. This study has had long lasting results and much of the literature published by other authors on formative assessment use the research conducted by Black and Williams.

Last year Vallivue Middle School embarked on a search to find a formative computerized assessment system. After an extensive search we found a system called the *Prosper Formative Assessment System* that would provide all of the math test banks and analytical reporting that teachers and administrators needed to effectively diagnose individual student content weakness and thereby prescribe the appropriate remedial instruction to effect student achievement. The Vallivue Middle School, along with the ELL program, obtained a small grant in order to implement the *Prosper* system as a limited pilot program.

The implementation of the Prosper program has been very successful at Vallivue Middle School. The people who manage the back end of the system have dealt with many of the issues associated with this type of system and now possess an expertise on the intricacies of the Prosper program. This knowledge and experience is invaluable to the success of this project, and to the future incorporation of the *Prosper* system throughout the district.

The time has come to expand this program into our entire secondary school system. Vallivue needs further development of this program at VMS with expansion into its sister school Sage, as well as at Vallivue High School. The tightly bound relationship that was established has created an inequity between the three schools specifically in the area of being able to conduct formative assessments. The site license of Prosper does not allow for sharing with other schools in the district. Successful implementation of the formative assessment system and the increase in math performance by our subpopulations demands that all secondary schools have the system in place.

Local Project Detail

The *Vallivue Initiative for a Standards Testing Assessment System*, (VISTAS) seeks to expand our current formative assessment system, initially piloted by Vallivue Middle School, into our remaining secondary schools to provide our administrators and teachers with:

- comparison data to ISAT test results
- data that demonstrates Annual Yearly Progress and increased student achievement
- data to illuminate student performance
- data to drive and improve instruction, and promote a more effective and efficient collaboration process
- a reliable tool that can predict individual student future performance on statewide summative assessments
- tools to identify students at risk, and develop appropriate interventions
- data analysis to benefit classroom instruction and in turn improve student achievement

VISTAS primary target is math students in grades 6-12, and specifically students identified in the Tier II and Tier III levels of the IDEIA framework. The focus of this project is mathematics because it is the content area that has been identified as needing the most improvement on statewide, standardized achievement tests in the Vallivue School District.

As mentioned earlier, Vallivue Middle School along with the ELL program purchased the *Prosper* Assessment System from NCS Pearson, including eight mathematics test banks, to begin the formative assessment building process. Vallivue Middle School was able to use the system very quickly even without alignment to the standards. In this case, teachers could still get data on student performance on a question level, but would have to disaggregate the data if they wanted it applied to standards. This system is comprised of three components: the test banks, Examview software, and the *Prosper* Assessment System.

The test banks consist of over 8000 professionally created questions covering all math courses from 6th grade through Geometry. The vast majority of questions are dynamic in nature allowing repeated use of questions. This year all of our secondary schools purchased textbooks from various vendors that included Examview and additional test banks in science, social studies, health, and mathematics.

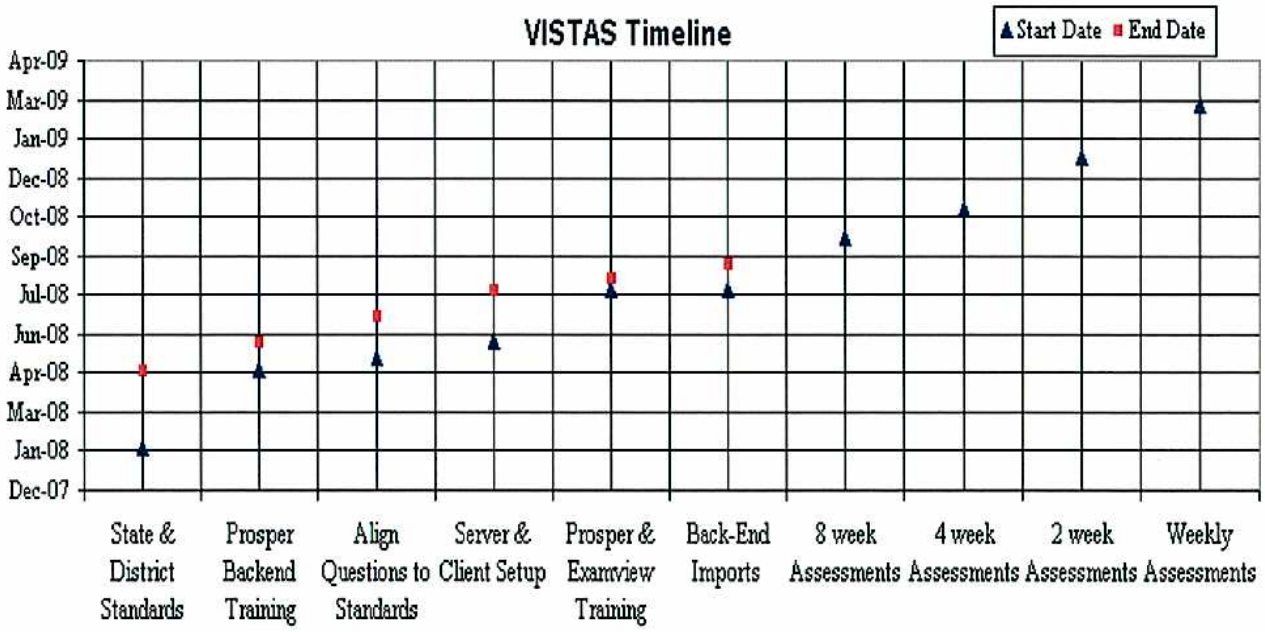
The primary purpose of the Examview software is to generate assessments using provided test banks and then make them available for import into the *Prosper* system. Additional features allow user creation of new questions and the ability to modify, reorganize, and create new test banks. It also provides a vehicle to tie each question to state and/or district standards and allows for the entry of keywords and difficulty levels (also used to reserve questions for specific purposes) that test creators can use as a filtering device when creating assessments.

Prosper is the assessment portion of the system that houses district and state standards, class rosters, assessments created by using Examview, and provides robust reporting to administrators and teachers. Students take the assessments on bubble sheets that are scan-scored using the *Prosper* system. On completion of the scanning, teachers have immediate access to the new data generated as well as all previous student data collected. There are over 12 detailed reports

available to both teachers and administrators that enable them to look at individual, classroom, and school achievement levels that are tied directly to state and district standards. More reports can be generated by using query filters that allow reporting on NCLB categories.

Implementation of this project requires a good deal of up-front work. The work consists of finalizing our district standards/objectives for mathematics in grades 6-8 and algebra, as these areas constitute the greatest bulk of students who are currently in Tiers II and III and fall within the scope of this project. We must also convert the state standards into a *Prosper* usable format, establish a standard for keywords usage, determine the usage of the question difficulty level, and finally process each question and enter the keywords, difficulty levels, and align them to state and district standards. The time between tests will be shortened gradually from every eight weeks to four weeks, to two weeks, and eventually become integrated into the classroom for weekly assessments by teachers. Research has shown that formative assessments should be given within one week of the introduction of new information to be the most effective.

Teachers will complete the tasks via a collaboration process using the professional development funds designated for this project. Teachers will need training on using the Examview and *Prosper* portions of the system. The purchase of the system includes training for two individuals on setup and implementation.
The timeline for the tasks is shown below.



We are embarking down a path with a new formative assessment tool that will provide us with a vast amount of data to help drive and change the teaching and planning processes we currently use for the betterment of our students. Current research on formative assessment reveals unequivocally that implementing a program of frequent formative assessments can have a dramatic impact on student learning. (Black and Williams, 1998) The ultimate goal of sustaining student achievement over time will require a paradigm shift in education through the use of formative assessment systems such as *Prosper*. This VISTAS grant embodies the idea of letting data drive the educational processes that lead to sustained student achievement.

Sustainability

In order to sustain high student achievement on high stakes tests, the core beliefs of educational institutions need to change fundamentally to allow data to drive the educational processes. Vallivue commits itself to this line of thought, anticipates the challenges it presents, and realizes that transformational institutional changes are required in order to provide the highest quality education to our students.

The sustainability of the VISTAS project is ensured in several ways. First, there is a one-time cost for the assessment system with no required renewable fees. If updates are desired, the district will cover the costs with district funds. Secondly, our ongoing efforts and continued emphasis on collaboration between teachers and schools with focus on common curriculum and assessments lends itself well to the integration of this new system. Third, teacher buy-in for this program is already high. Vallivue Middle School has numerous teachers requesting training for using the system. This type of teacher buy-in greatly improves a program's chance for success and sustainability. Only a lack of training for teachers could erode the level of teacher buy-in and commitment to the assessment system.

Continued teacher training due to turnover and expanded use in other subject areas is crucial for the continued success of this project. Vallivue will use the grant to train a group of 6^{th} to 12^{th} grade mathematics teachers to fully implement the assessment system within Tier II and III mathematics classes for the 2008-09 school year. This group will use district collaboration days to share implementation ideas and study the data they collect. These teachers will become the district "experts" to train new teachers in the future. Training will take place during the fall of each school year.

The district's commitment to systemic change is reflected in two "Tech Learning" articles by Todd McIntire – *Maximize Your Mining,* Part 1 (April 2005) and Part 2 (June 2005). Our schools are presently in Stage One: a data analysis stage where the focus is on the data analysis process followed by action plans that do not result in substantive gains due to the lack of understanding of the limitations and context of the data. However, this stage is required in order to progress to Stage Two – our goal in 2008-09 with our group of teachers.

The overall goal of Stage Two is maximizing educational efficiency through a structured data analysis process where teachers and teams vigilantly analyze the data collected. The type of analysis tracks student performance in smaller groups and directly influences the short-term planning decisions at classroom level. We see gains for students who are close to proficiency, but only modest gains for all other students. Thus, efficiency reaches a threshold point. Therefore, the focus needs to change from groups and sub-groups to the individual level. This will require organizational reform and changes in a school's core belief system. This shift in change of focus is the mark of a Stage Three School.

Stage Three is the ultimate goal for any school or district that wants to sustain growth in student achievement. According to McIntire, schools wishing to move from Stage Two to Stage Three will require transformational change. They must embrace a new core belief system and be willing to reorganize time and teacher teams based on the data analysis and collections processes as well as build in structures of accountability for their teachers. This will be the sustained goal of the Vallivue School District in 2010-11.

VISTAS Budget

Successful implementation of a formative assessment system in three schools requires a combination of front-end and back-end work as well as specific staff training in various aspects of the Prosper Formative Assessment System and the Examview Pro software. It also consists of acquiring and setting up the hardware, software, and accessory products necessary to support the project.

Front-End Work

This work consists of converting the existing state standards in mathematics for grades 6-10 (there are no standards in math for grades 11 and 12) into a format usable by *Prosper*. Other front-end work consists of developing and formatting specific district standards/objectives for use in the *Prosper* system. This work will take place during the summer of 2008 and will require four people approximately 1.5 days to complete. The task of establishing keyword and difficulty levels, aligning purchased test bank questions with the state and district standards, and subsequently hand entering this data via Examview's test bank editor will occur during the summer of 2008 and require eight people for approximately three days.

Back-End Work

This work consists of training the individuals from Sage and Vallivue High School on how to manage the *Prosper* system. Classes, rosters, and student demographic information need to be imported from the Student Information System. This training also includes importing teacher created tests and/or answer keys into the system and scanning simulated tests into the system. The two people at Vallivue Middle School who already have the experience and expertise on the system will conduct the one-day training.

Hardware, Software, and Accessories

The hardware required to implement *Prosper* consists of the scan sheet scanners and additional memory for client computers. The software needed at Sage and VHS consists of *Prosper*, Examview Pro, and the test banks (VMS already has the software). The additional costs of obtaining the optional service agreement for the subsequent year are also included. Assessment scan forms for all schools will also be purchased.

Hardware and Software Setup

The Vallivue technology department will provide the servers and operating systems at each of the schools and will handle the installation of the *Prosper* server and client software packages. They will also install the required memory upgrades on client computers as recommended by the *Prosper* workstation minimum specifications.

Cohort and In-House Training

NCS Pearson will provide on-site training for the group of member teachers from each school during the early summer of 2008. This two-day training will cover the usage of the *Prosper* system as well as Examview Pro test generation software. Future training will take place in the form of in-house training at each school during the first part of the school year and be conducted my members of the cohort. This will require the use of substitute teachers to free up math teachers for training. The district also has six collaboration days throughout the year that will be used by the cohort to share information as well as develop other training aids for teachers and administrators. The cohort will also develop an online formative assessment class to be made available to all teachers in the three schools and eventually to all teachers throughout the district. This online class will be housed on the district's Learning Management System (LMS) and will be designed to meet college requirements so that it can be taken for credit with an online instructor. The course structure will allow teachers to take the class independently or with an instructor.

VISTAS Budget

Administrative Costs	
Stipend for project director to oversee the project. (2.5%)	$1,875.00
Total Administrative Costs	**$1,875.00**
Hardware and Software Costs	
Hardware costs: Scanners, client computer memory	$18,500.00
Software costs: *Prosper*, Examview, SQL, and test banks	$25,800.00
Accessory Costs	
Accessory products: scan forms	$10,075.00
Total Hardware, Software, and Assessory Costs	**$54,375.00**
Professional Development	
Provide stipends for entire cohort to attend 3-day summer session to align test bank questions to state and district standards	$3,675.00
Two-day NCS onsite training: Also includes NCS instructor airfare, hotel, car rental, and meals.	$4,225.00
Provide stipends for four members of selected cohort to attend a summer session to setup district and state standards.	$1,050.00
Provide stipends for four people to attend one-day back-end training on the *Prosper* system.	$700.00
Substitutes for in house training of *Prosper* and Examview for all secondary math teachers.	$7,100.00
Stipend for cohort to develop an online formative assessment training class that all teachers can take for credit.	$2,000.00
Total Professional Development	**$18,750.00**
Grand Total	**$75,000.00**